FIG. 1

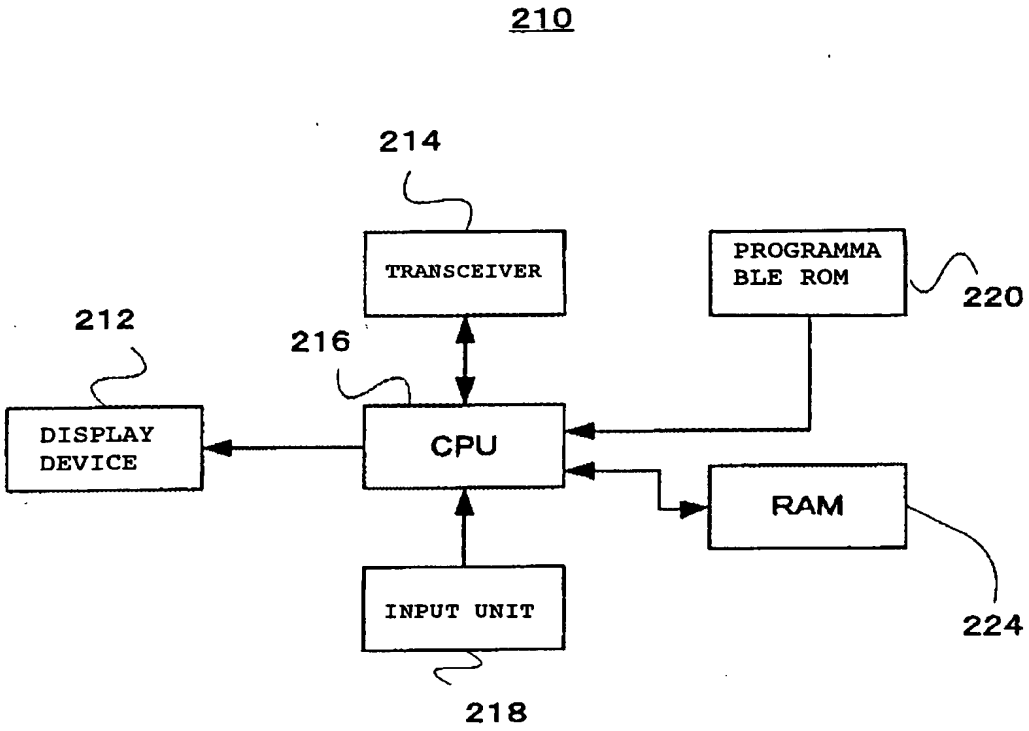
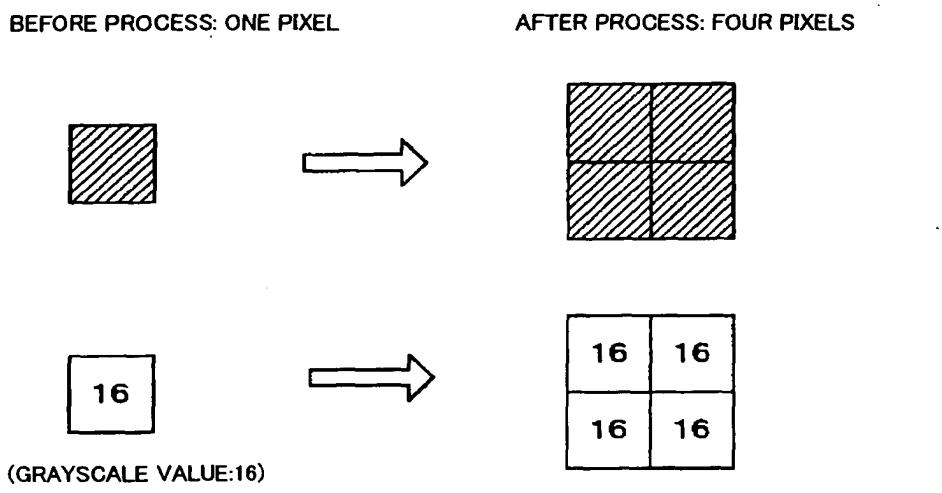

210
214
TRANSCEIVER
PROGRAMMA BLE ROM
220
212
216
DISPLAY DEVICE
CPU
RAM
224
INPUT UNIT
218

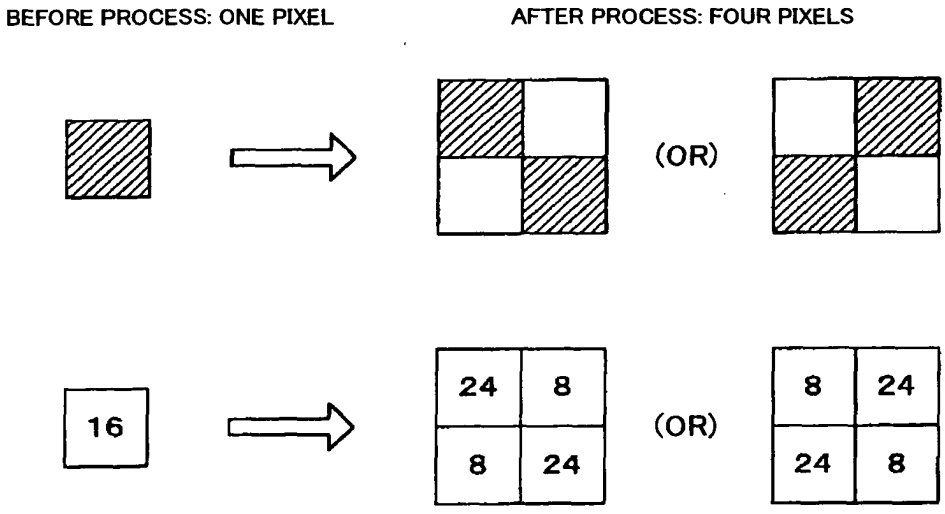
FIG. 2

<SIMPLE RESOLUTION CONVERSION STEP>



(a)

<RESOLUTION CONVERSION+VIEWING ANGLE RANGE ADJUSTMENT>



(b)

FIG. 3

<VIEWING ANGLE RANGE ADJUSTMENT FOR EACH RGB>

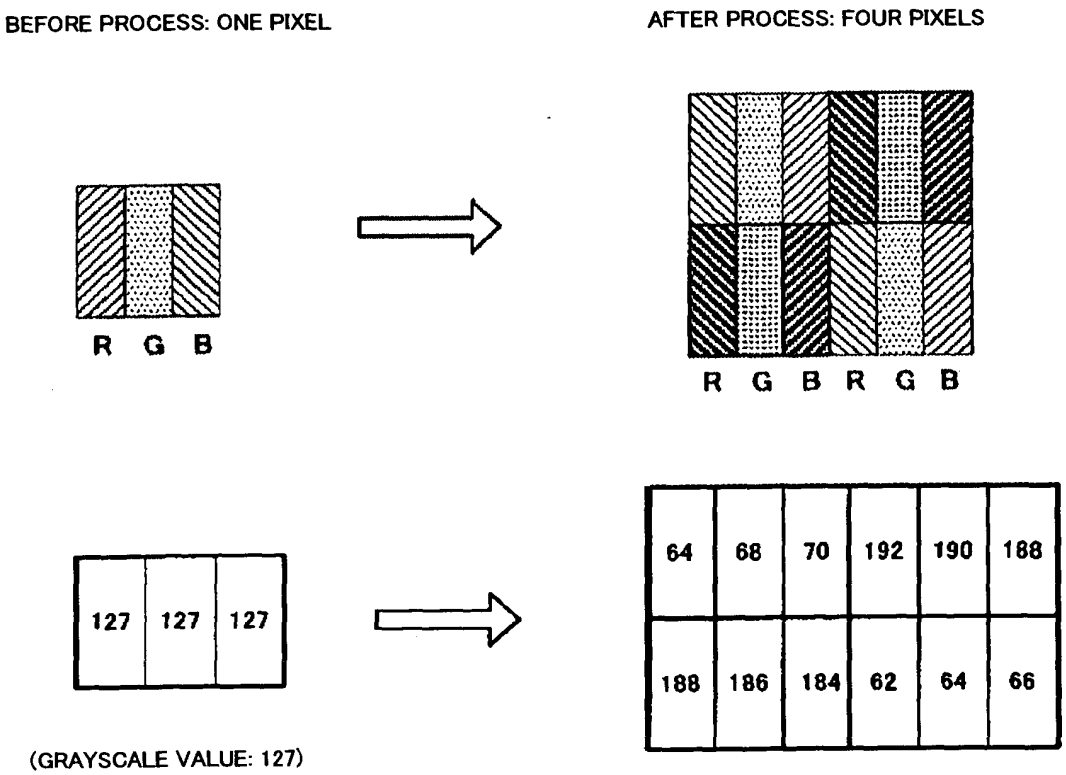
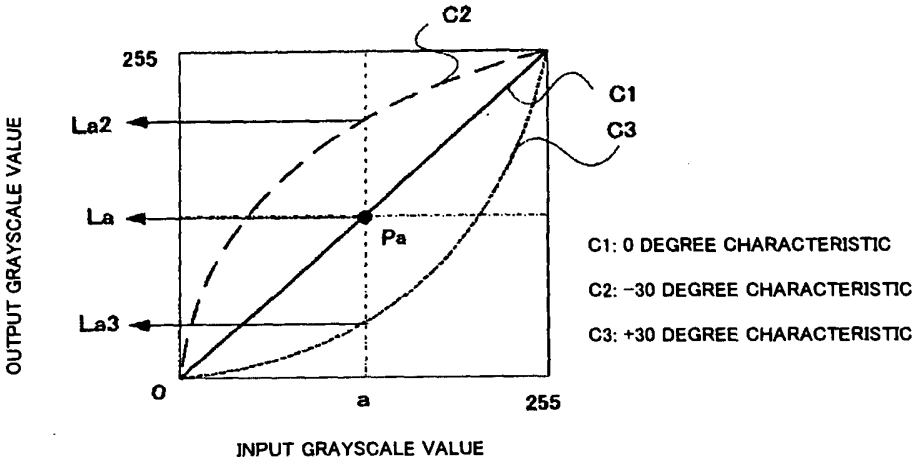
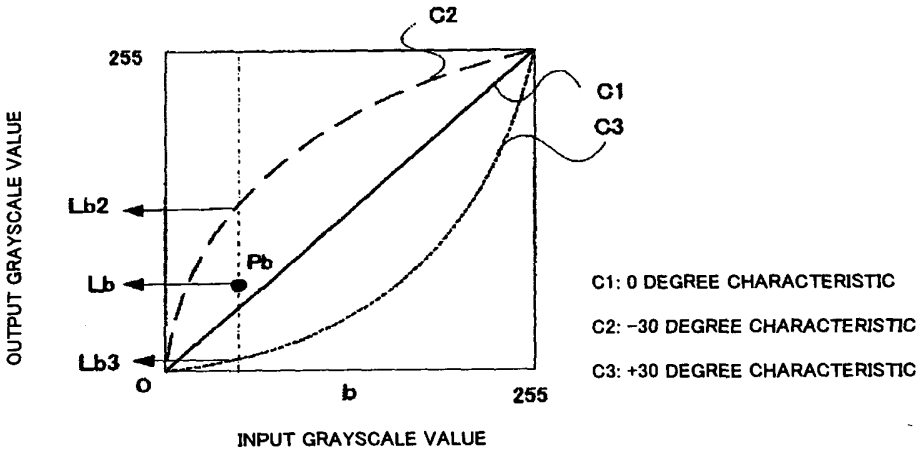


FIG. 4

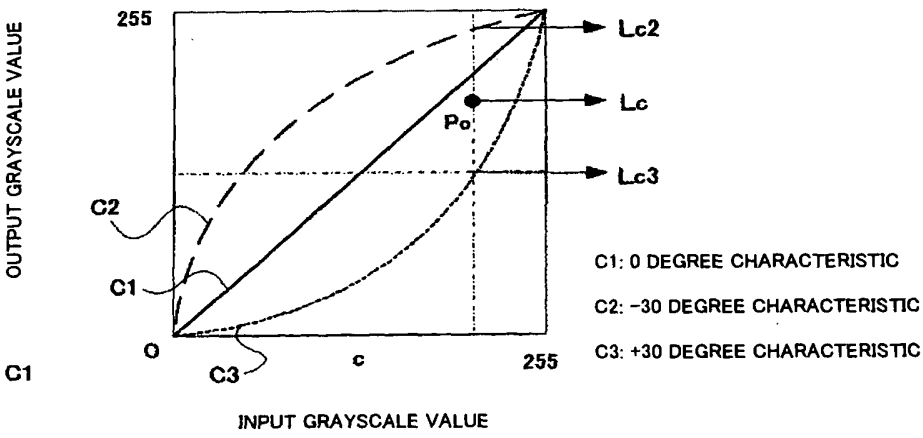
(a)

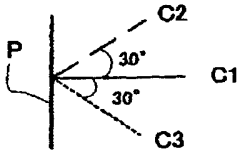

C2
255
C1
C3
La2
La
Pa
La3
OUTPUT GRAYSCALE VALUE
0
a
255
INPUT GRAYSCALE VALUE
C1: 0 DEGREE CHARACTERISTIC
C2: −30 DEGREE CHARACTERISTIC
C3: +30 DEGREE CHARACTERISTIC

(b)


C2
255
C1
C3
Lb2
Pb
Lb
Lb3
OUTPUT GRAYSCALE VALUE
0
b
255
INPUT GRAYSCALE VALUE
C1: 0 DEGREE CHARACTERISTIC
C2: −30 DEGREE CHARACTERISTIC
C3: +30 DEGREE CHARACTERISTIC

(c)


255
Lc2
Lc
Po
Lc3
C2
C1
OUTPUT GRAYSCALE VALUE
0
C3
c
255
INPUT GRAYSCALE VALUE
C1: 0 DEGREE CHARACTERISTIC
C2: −30 DEGREE CHARACTERISTIC
C3: +30 DEGREE CHARACTERISTIC


C2
P
30°
C1
30°
C3

(d)

FIG. 5

<VIEWING ANGLE RANGE ADJUSTMENT IN CONSIDERATION OF DISPLAY CHARACTERISTIC>

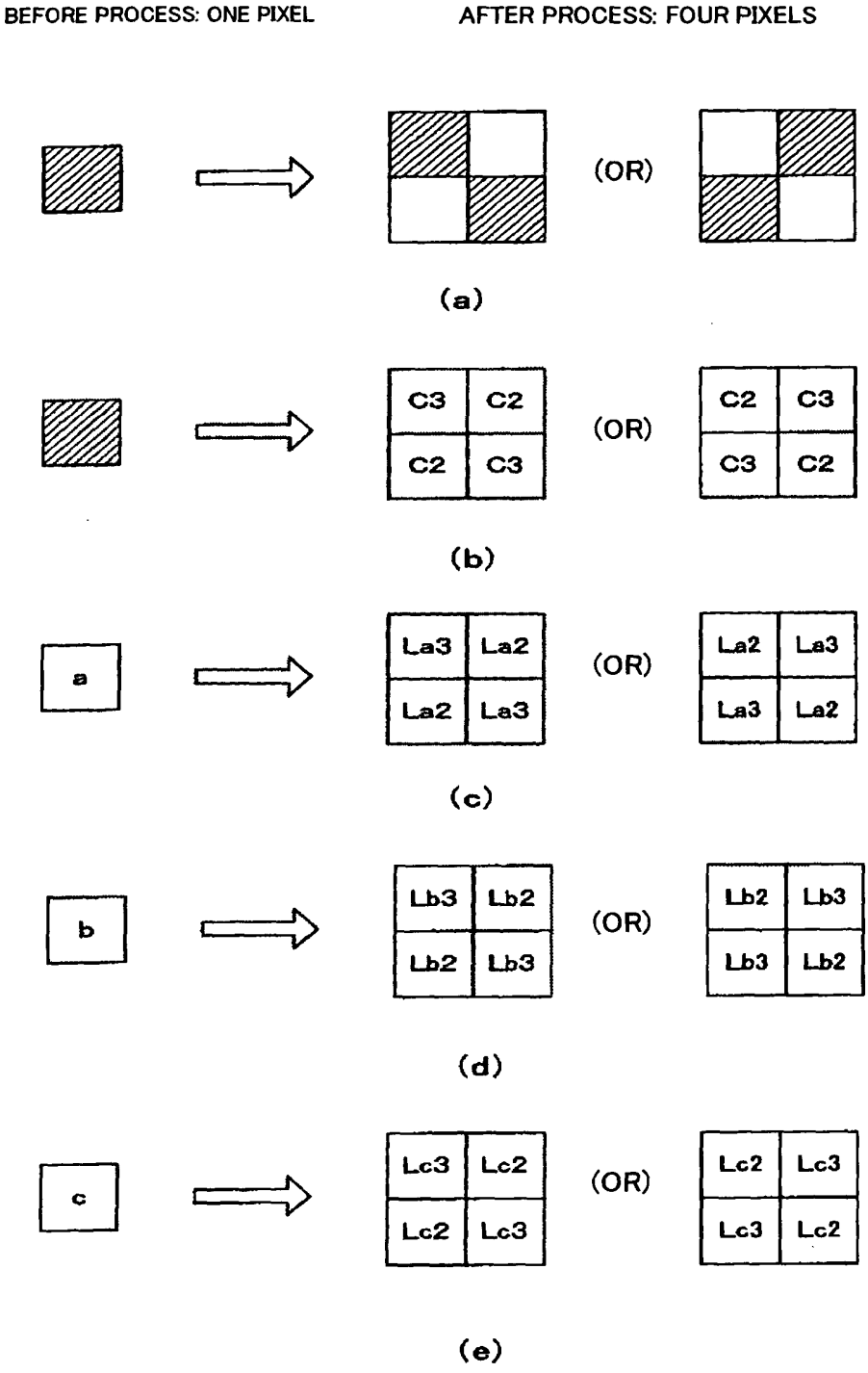


FIG. 6

<PATTERN FOR IMPROVING VIEWING ANGLE RANGE>

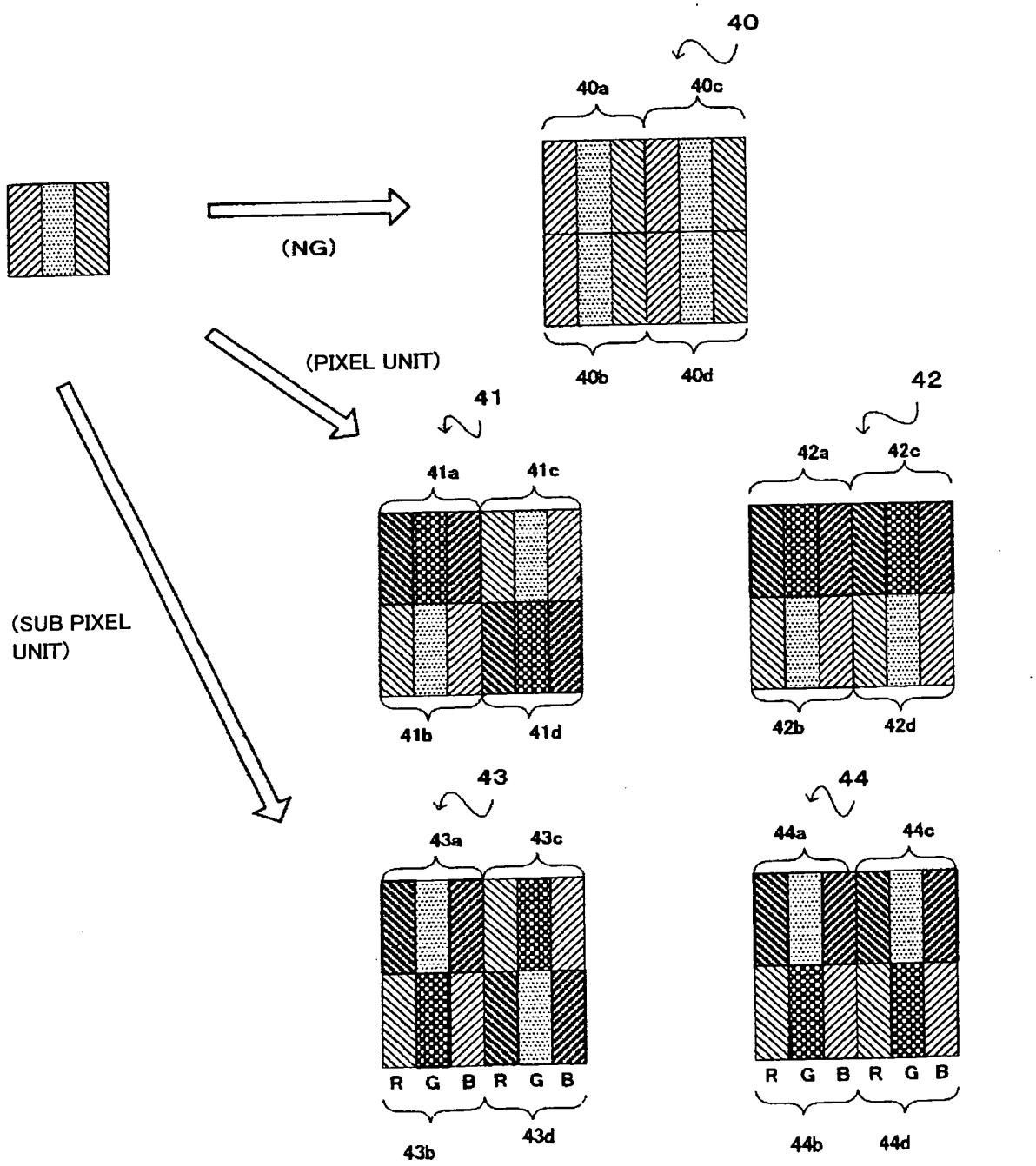


FIG. 7

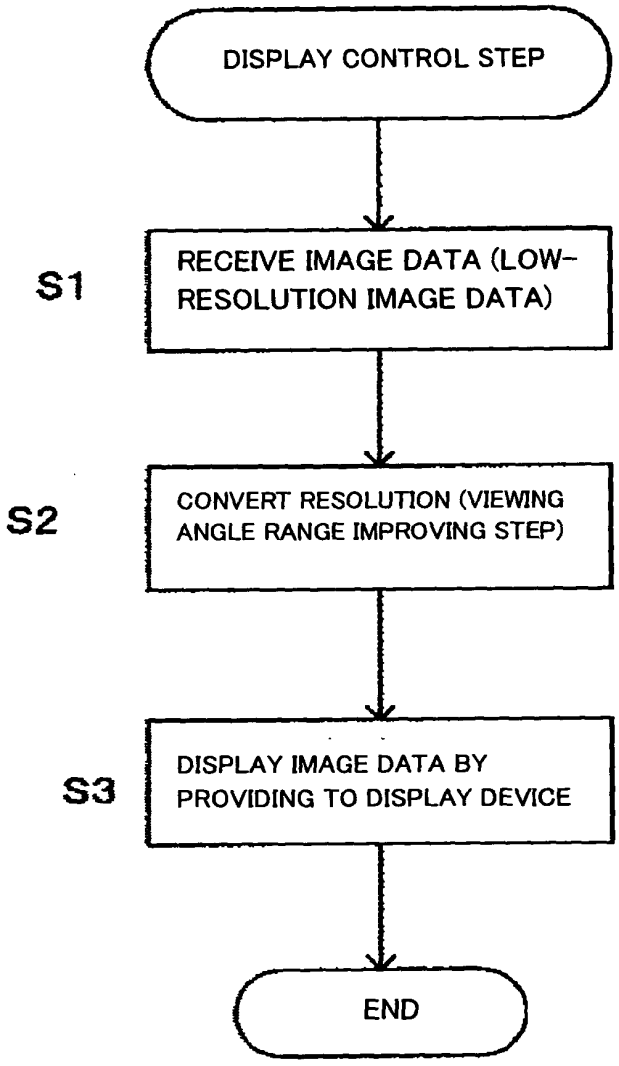
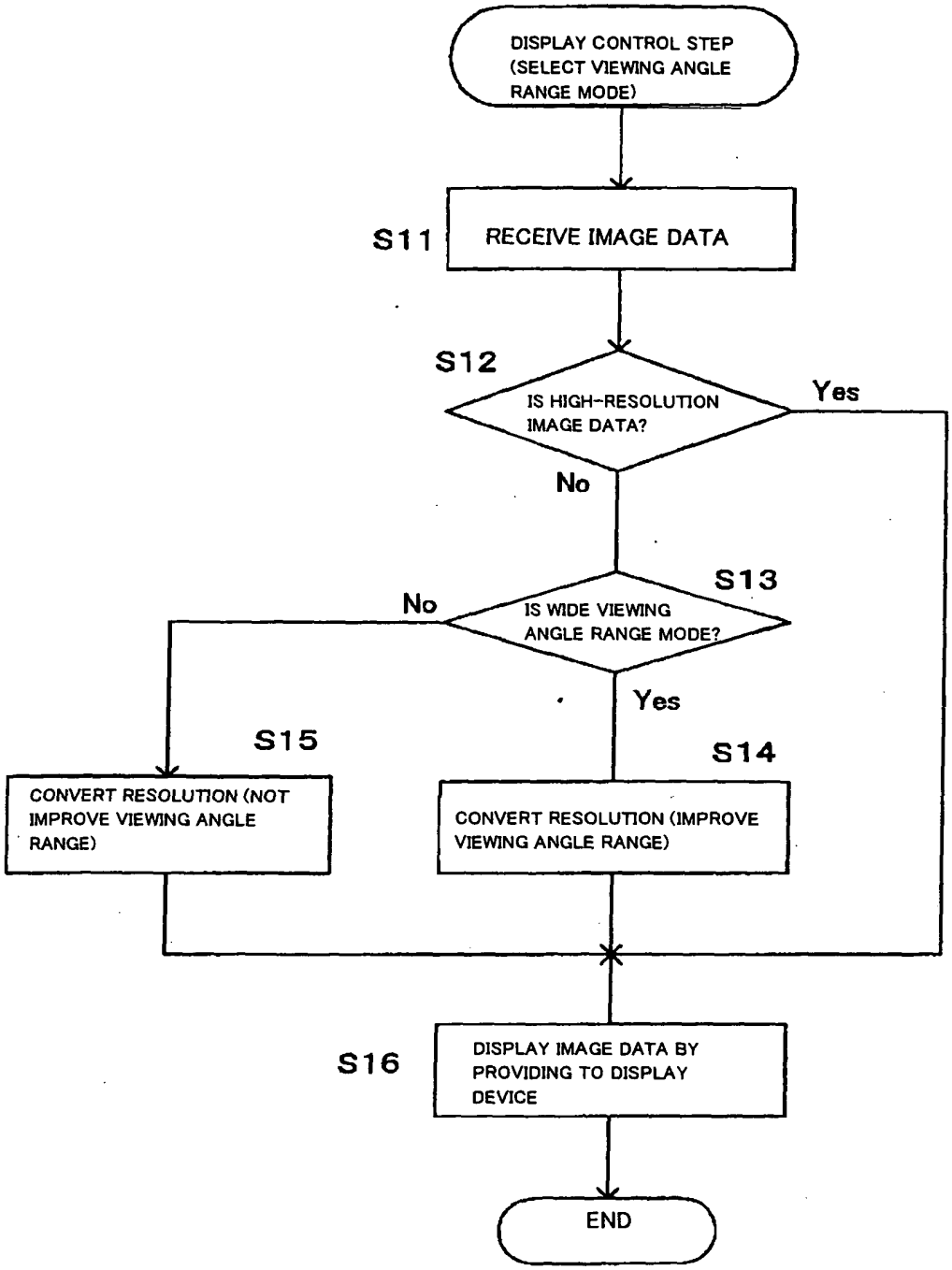

DISPLAY CONTROL STEP
S1
RECEIVE IMAGE DATA (LOW-RESOLUTION IMAGE DATA)
S2
CONVERT RESOLUTION (VIEWING ANGLE RANGE IMPROVING STEP)
S3
DISPLAY IMAGE DATA BY PROVIDING TO DISPLAY DEVICE
END

FIG. 8


DISPLAY CONTROL STEP (SELECT VIEWING ANGLE RANGE MODE)
S11
RECEIVE IMAGE DATA
S12
IS HIGH-RESOLUTION IMAGE DATA?
Yes
No
S13
IS WIDE VIEWING ANGLE RANGE MODE?
No
Yes
S15
CONVERT RESOLUTION (NOT IMPROVE VIEWING ANGLE RANGE)
S14
CONVERT RESOLUTION (IMPROVE VIEWING ANGLE RANGE)
S16
DISPLAY IMAGE DATA BY PROVIDING TO DISPLAY DEVICE
END